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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,584	06/12/2001	Masahiro Matsuo	P/1071-1372	7710

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EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,584

Applicant(s)

MATSUO, MASAHIRO

Examiner

Kallambella Vijayakumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 10, 12, 16-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 5, 7-9, 11, 13-15, 20 and 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

- Acknowledge the response filed 01/14/2004 in response to office action mailed 10/14/2003.
- Applicant's arguments filed 01/14/2004 have been fully considered but they are not persuasive. The following rejections have been maintained for the following reasons:

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

1. Claims 1 and 25 are rejected under 35 U.S.C. 102(b/a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ueyama et al (US Patent # 5,916,628).

Normally, only one reference should be used in making a rejection under 35 U.S.C. 102. However, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to (SEE MPEP 2131.01):

- (A) Prove the primary reference contains an "enabled disclosure; "
- (B) Explain the meaning of a term used in the primary reference; or
- (C) Show that a characteristic not disclosed in the reference is inherent.

- This rejection is maintained for the reasons given in Office action mailed 1/14/2003 and the following reasons:
- Applicants argue that the disclosure of filter may be generic and there is no teaching of viscosity in the Abstract of Nakano et al, which is an oversight, and this is not persuasive.
- Ueyama teaches the filtration of an active material for the electrodes through a non-woven fabric filter of SS-steel, where in the composition of the paste comprises a dispersion of metal powders in a binder (Col-3, Lines: 64-67). In fact applicants define

their thick film paste composition to comprise of conductive metallic powder dispersed in a binder that is almost identical in composition to that by Ueyama, and the pastes are even meant for similar applications such as making of the electrodes (See Instant specification: Sections-0004-0005).

- Nakao (JP 10-199331) discloses the viscosity of an ink comprising of metallic powder in a solvent and resin for the ceramic electronic parts such as laminated ceramic capacitor that is nearly the same application intended for the paste by the applicants, and the viscosity of the paste to be **10 poise <1 Pa.S>**, and a copy of the abstract is attached. The viscosity of Nakano overlaps with that of the applicants range in the instant claims. Towlson (US 5,653,918) not used in the present rejection asserts the viscosity ranges for the thick film pastes (Col-5, Table) to be overlapping with values of Nakano and by the applicants. The terminology of ink and pastes are being loosely and interchangeably used in the art for the materials with similar viscosities as evidenced by Nakano and Towson serving the same application that are identical to that by the applicants.
- PRIOR ART WHICH TEACHES A RANGE WITHIN, OVERLAPPING, OR TOUCHING THE CLAIMED RANGE ANTICIPATES IF THE PRIOR ART RANGE DISCLOSES THE CLAIMED RANGE WITH "SUFFICIENT SPECIFICITY" Ex parte Lee 31 USPQ2d 1105 (Bd. Pat. App. & Inter. 1993) MPEP § 2131.05.
- The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995), MPEP 2112.
- When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is not patentable. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983). See also MPEP §2113.

- In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).
2. Claims 1-4, 6, 10, 12, 16-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyama et al (US Patent # 5,916,628) in view of Aoike et al (JP 2000-129311).
- This rejection is maintained for the reasons given in Office action mailed 1/14/2003 and the following reasons:
 - The applicants argue that there is no apparent reason to combine these references/inventions other than the hindsight, and this is not persuasive and the office respectfully disagrees over the reasons presented under 102/103 rejection as above over Ueyama et al as set forth. Just to high-light, the composition of Ueyama, Nakano and the applicants are almost identical and with nearly identical applications. Aoike discloses that his filters could be used in filtering INKS (Section-0015). Nakano discloses the viscosity of such inks that would be in line with the viscosities for thick film pastes/electrode pastes including that by the applicants and one of ordinary skill in the art would be obviously choosing Aoike's filters as an option to benefit from low

pressure drops and superior filtration capabilities, because all the teachings are in the analogous art of filtrations of inks/paints/pastes/thick-film-pastes/fluids with similar composition/fluids with similar range of viscosities, and with the expectation of reasonable success in arriving at the limitations of instant claims by the applicants

Allowable Subject Matter

- The following is a statement of reasons for the indication of allowable subject matter:

Claims 5, 7-9, 11, 13-15, 20 and 22-24 would be allowable over prior art of record *upon overcoming the objections*, because the prior art does not teach or fairly suggestive of a second non-woven sintered metal filter bed for the filtration of the paste in the manufacture of the paste, their configurations in the filter apparatus and a filter apparatus meeting the limitations of the instant claims by the applicants.

Conclusion

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vandamme et al (US 5,665,479), Towlson (US 5,653,918), Ida et al (US 4,515,691) and Shiomi et al (US 5,779,899).
- **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end

of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on M-Th, 07.00 - 16.30 hrs, Alt. Fri: 07.00-15.30 hrs.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kmv
June 26, 2004.


Mark Kopec
Primary Examiner